

February 21, 2003

TO: Docket Management System
U.S. Department of Transportation
Room Plaza 401
400 Seventh Street SW
Washington, DC 20590-0001

FM: Don Taylor
Eclipse Aviation, Inc
2503 Clark Carr Loop SE
Albuquerque, NM 87106
(505) 724-1025

RE: Comments on the Proposed FAA FAR Part 60,
Flight Simulation Device Initial and Continuing Qualification and Use
Docket No. FAA-2002-12461
Notice No. 02-11, RIN 2120-AH07

1. Overall Comments: Eclipse Aviation applauds the FAA's attempt to put more structure on the process of qualifying and using Flight Simulation Devices (FSD). A robust quality assurance (QA) program, as outlined in the proposed FAR part 60, will help ensure quality pilot training. Eclipse Aviation is building a pervasive QA program throughout our business processes that will encompass the requirements set forth in the proposed rule. However, we have a few areas of concern with the FAR as proposed. Our concerns are enumerated below.

a. Harmonization with the JAA: The proposed FAR Part 60 does not go near far enough in attempting to harmonize requirements with the JAA. While qualifying an FSD on the basis of a Bilateral Aviation Safety Agreement (BASA) is a good start, we believe that greater efforts should be made through this proposed regulation. We recommend that the FAA use this proposed rule to better align with the JAA to include specific FSD definitions and initial and continuing qualification requirements. We suggest that this rule borrow extensively from the International Civil Aviation Authority (ICAO) document, Manual of the Criteria for the Qualification of Flight Simulators, 2nd edition. This document was endorsed by the FAA and should be incorporated into the QPS Appendices.

b. Sponsor Put in the Middle: The proposed rule puts sponsors in a precarious position between the National Simulator Program Manager (NSPM) and the sponsor's specific Training Program Approval Authority (TPAA). The proposed regulation puts an enormous burden on sponsors to coordinate the sometime disparate desires of the two Federal organizations. Eclipse Aviation would like to see a better delineation of duties and a more formalized coordination process within the FAA between these two bodies. This should be written into the regulation and coordinating FAA training regulations should be updated to correspond to the new requirements.

2. Specific Comments on Main Body:

a. **Proposed Paragraph 60.7 – Sponsor Qualification Requirements.**

The requirement that each device must be used for training a minimum of 600 hours per year is arbitrary and should be removed. As long as a sponsor can meet the continuing qualification requirements set forth, the FSD should remain qualified regardless of the number of training hours it is used. The staffing requirements of the National Simulator Program Office should not drive a mandate that could impact industry so severely. This requirement could have a devastating impact on small sponsors especially when they are struggling to attract customers. If the FAA is unwilling to remove the hourly requirement it should at least be drastically reduced and the 12 month required wait prior to reapplication should be removed.

One way to ensure the National Simulator Program Office would have the manpower to meet the requirements of the proposed FAR part 60 is to establish a Designated Engineering Representative (DER) type program. DERs could be sponsored by the NSPM and used for the inspection process much as DERs are used in this role throughout much of the FAA.

b. **Proposed Paragraph 60.25 – Operation with Missing, Malfunctioning, or Inoperative Components.**

The proposed sub-paragraph “b” states that *“Each missing, malfunctioning, or inoperative component must be repaired or replaced within 7 calendar days unless otherwise required or authorized by the NSPM.”* Later in the document this same paragraph is proposed to allow 30 days. Notwithstanding this discrepancy, we believe that this proposal is too stringent. While it is extremely important for the FSD to operate well, training may or may not be impacted by the missing, malfunctioning, or inoperative equipment. Depending on the specific training being conducted the equipment problem may be completely transparent to the trainee. In addition, one-of-a-kind simulator parts may be impossible to obtain in 30 days let alone 7 days. We believe that this should be left at the discretion of the sponsor or the sponsor in coordination with the TPAA for equipment discrepancies that directly effect training.

c. **Proposed Paragraph 60.27 – Automatic Loss of Qualification and Procedures for Restoration of Qualification.**

Sub-paragraph “a” of the proposed rule says that if the FSD is physically moved *“regardless of distance”* or if it is disassembled for repair or modification *“to such an extent that it cannot be used for training, evaluation, or experience activities”* that it automatically loses its qualification. Further, it requires the sponsor to poll the NSPM or TPAA to determine if an evaluation by the National Simulator Program Office is required. Simple regular maintenance on the FSD would meet the burden of *“disassembly for repair”* and require the sponsor to contact the TPAA or NSPM on an almost daily basis. This wording is wholly unacceptable. The sponsor should be given the latitude to make the decision as to

whether the level of disassembly requires consultation with the TPAA or NSPM. The QA program mandated by the rule and inspected by the NSPM will ensure that this is not abused.

d. Paragraph 60.31 – Recordkeeping and Reporting.

The proposed sub-paragraph “d” requiring the sponsor to submit an annual report certifying that the FSD continues to perform and handle as qualified by the NSPM is superfluous busy-work and should be removed. The sponsor’s QA program, other recordkeeping requirements, and recurrent NSPM inspection requirements set forth in the proposed rule should be sufficient for the NSPM.

3. Specific Comments on Appendix B-Qualification Performance Standards for Airplane Flight Training Devices:

a. Page 60377 of the Proposed Rule.

The proposed rule states, “*Any necessary data and the flight test plan should be reviewed with the NSP staff well in advance of commencing the flight test.*” This requirement should provide more explicit guidance than “well in advance”. Sponsors and simulator and aircraft manufacturers will need guarantees from the NSPM as to schedule to include in their program’s critical path. Without such assurances from the NSPM the sponsor cannot properly plan.

b. Page 60380 of the Proposed Rule.

The proposed minimum preflight requirements are excessive. The specific requirements of the preflight inspection and other internal inspections should be left up to the sponsor and included in the sponsor’s specific QA program.

c. Page 60384 of the Proposed Rule – Table of Minimum Flight Training Device Requirements Information (3d).

Section 3d requires that the output from the pilot’s control column be an “*analog*” output. We believe the intent of this requirement is to ensure that precise knowledge of the timing of control column inputs can be recorded. This can be accomplished with a digital output as long as the delays are deterministic and known. The requirement should simply be that the precise time of control column movements should be known and/or recorded.

4. Conclusions: The proposed FAR Part 60 will help ensure sponsors have the quality tools required to continue to produce excellent pilot training programs. Eclipse Aviation wholeheartedly supports such an approach. However, we strongly feel better efforts should be embarked upon to ensure harmonization with the JAA on FSD definitions and requirements. This proposed rule affords the FAA a great opportunity to accomplish just that. JAA harmonization and the comments enumerated above should be incorporated into the proposed FAR Part 60.

Please do not hesitate to call if you would like to discuss our comments.

Sincerely,

Don Taylor

Vice President of Flight Operations, Training, and Safety

(505) 724-1025

donalddt@eclipseaviation.com